UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/717,579	11/21/2000	Curtis E. Jutzi	042390.P9907	2132

8791	7590	01/12/2006		EXAMINER

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ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 October 2005*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6-17,20-31,34-45 and 48-55* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6-17,20-31,34-45 and 48-55* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Response to Arguments

1:      Applicant's arguments with respect to claims 1-3, 6-17, 20-31, 34-45 and 48-55 have

been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
>
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
>
> the prior art are such that the subject matter as a whole would have been obvious at the time the
>
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
>
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1, 6-15, 20-29, 34-43 and 48-55 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Anderson et al. (US 5,905,713 A) in view of Gusella et al. (US 5,408465 A)

and further in view of Gangitano (US 6,580,452 B1).

Regarding **claim 1**, Anderson teaches an apparatus (figures 1 & 5) comprising:

a digital television receiver (64 within device 63) to receive a digital television broadcast

signal, the digital television broadcast signal including a data test stream (38) having a plurality

of data packets, and

an analyzer logic (68) to verify the integrity of the digital television broadcast signal and

to cause the verification error or results to be displayed (see col. 6, lines 1-6, 40-43, 55-57);

wherein the analyzer logic measures a number of data packets of the data test stream

received by the digital television receiver over predetermined interval (it is noted that the verify

function tests the semantics and sequencing of the sequencing of the packet stream over a

predetermined interval, i.e., before displaying the verification results – see col. 6, lines 44-52;

col. 7, lines 32-36).

Anderson does not teach determining a data packet loss percentage value for the data

stream by calculating a ratio of the measured number of data packets received by the digital

receiver and a number of data packets that should have been received by the digital receiver.

However, Gusella discloses that a data loss ratio could be measured as a ratio of lost packets to

successfully received packets (see col. 8, lines 19-22). Therefore, it would have been obvious to

one of ordinary skill in the art at the time the invention was made to modify the system of

Anderson by measuring a data loss ratio as a ratio of lost packets to successfully received

packets as disclosed Gusella in order to accurately determine error of data reception in the

network.

Anderson does not teach displaying a service level of signal based upon a loss of data

packets. However, Gangitano teaches detecting a loss of received signal and presenting a

signal loss on-screen notification (see col. 2, lines 45-50 and figure 5). Therefore, it would have

been obvious to one of ordinary skill in the art at the time the invention was made to modify the

system of Anderson by detecting a loss of received signal and presenting a signal loss on-

screen notification as taught Gangitano in order to effectively provide an improved means for

displaying received signal strength.

Regarding **claim 15**, Anderson teaches a method comprising:

receiving a digital television broadcast signal that includes a data test stream (38) having

a plurality of data packets;

determining the integrity of the digital television broadcast signal via an analyzer logic

and to cause the verification error or results to be displayed (see col. 6, lines 1-6, 40-43, 55-

57);

wherein the analyzer logic measures a number of data packets of the data test stream received by the digital television receiver over predetermined interval (it is noted that the verify function tests the semantics and sequencing of the sequencing of the packet stream over a predetermined interval, i.e., before displaying the verification results – see col. 6, lines 44-52; col. 7, lines 32-36).

Anderson does not teach determining a data packet loss percentage value for the data stream by calculating a ratio of the measured number of data packets received by the digital receiver and a number of data packets that should have been received by the digital receiver. However, Gusella discloses that a data loss ratio could be measured as a ratio of lost packets to successfully received packets (see col. 8, lines 19-22). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Anderson by measuring a data loss ratio as a ratio of lost packets to successfully received packets as disclosed Gusella in order to accurately determine error of data reception in the network.

Anderson does not teach displaying a service level of signal based upon a loss of data packets. However, Gangitano teaches detecting a loss of received signal and presenting a signal loss on-screen notification (see col. 2, lines 45-50 and figure 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Anderson by detecting a loss of received signal and presenting a signal loss on-screen notification as taught Gangitano in order to effectively provide an improved means for displaying received signal strength.

Regarding **claim 29**, Anderson discloses a machine-readable medium having stored thereon instructions (software or programs stored within device 63 – see figure 5), which when executed by a processor, causes the processor to perform the following:

receiving a digital television broadcast signal that includes a data test stream (38) having a

plurality of data packets;

determining the integrity of the digital television broadcast signal via an analyzer logic

and to cause the verification error or results to be displayed (see col. 6, lines 1-6, 40-43, 55-

57);

wherein the analyzer logic measures a number of data packets of the data test stream

received by the digital television receiver over predetermined interval (it is noted that the verify

function tests the semantics and sequencing of the sequencing of the packet stream over a

predetermined interval, i.e., before displaying the verification results – see col. 6, lines 44-52;

col. 7, lines 32-36).

Anderson does not teach determining a data packet loss percentage value for the data

stream by calculating a ratio of the measured number of data packets received by the digital

receiver and a number of data packets that should have been received by the digital receiver.

However, Gusella discloses that a data loss ratio could be measured as a ratio of lost packets to

successfully received packets (see col. 8, lines 19-22). Therefore, it would have been obvious to

one of ordinary skill in the art at the time the invention was made to modify the system of

Anderson by measuring a data loss ratio as a ratio of lost packets to successfully received

packets as disclosed Gusella in order to accurately determine error of data reception in the

network.

Anderson does not teach displaying a service level of signal based upon a loss of data

packets. However, Gangitano teaches detecting a loss of received signal and presenting a

signal loss on-screen notification (see col. 2, lines 45-50 and figure 5). Therefore, it would have

been obvious to one of ordinary skill in the art at the time the invention was made to modify the

system of Anderson by detecting a loss of received signal and presenting a signal loss on-

screen notification as taught Gangitano in order to effectively provide an improved means for displaying received signal strength.

Regarding **claim 43**, Anderson teaches a system comprising:

a digital television receiver (64 – see figure 5) to receive a digital television broadcast signal, the digital television broadcast signal including a data test stream (38) having a plurality of data packets, and

an analyzer logic (68) to verify the integrity of the digital television broadcast signal and to cause the verification error or results to be displayed (see col. 6, lines 1-6, 40-43, 55-57);

wherein the analyzer logic measures a number of data packets of the data test stream received by the digital television receiver over predetermined interval (it is noted that the verify function tests the semantics and sequencing of the sequencing of the packet stream over a predetermined interval, i.e., before displaying the verification results – see col. 6, lines 44-52; col. 7, lines 32-36).

Anderson does not teach determining a data packet loss percentage value for the data stream by calculating a ratio of the measured number of data packets received by the digital receiver and a number of data packets that should have been received by the digital receiver. However, Gusella discloses that a data loss ratio could be measured as a ratio of lost packets to successfully received packets (see col. 8, lines 19-22). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Anderson by measuring a data loss ratio as a ratio of lost packets to successfully received packets as disclosed Gusella in order to accurately determine error of data reception in the network.

Anderson does not teach displaying a service level of signal based upon a loss of data packets. However, Gangitano teaches detecting a loss of received signal and presenting a

signal loss on-screen notification (see col. 2, lines 45-50 and figure 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Anderson by detecting a loss of received signal and presenting a signal loss on-screen notification as taught Gangitano in order to effectively provide an improved means for displaying received signal strength.

Regarding **claims 6-8, 20-22, 34-36 and 48-50,** the combined teachings of Anderson, Gusella and Gangitano include measuring a data loss ratio as a ratio of lost packets to successfully received packets and presenting a signal loss on-screen notification to indicate the service level of the digital television broadcast signal (see Anderson: col. 6, lines 44-52; col. 7, lines 32-36; Gusella: col. 8, lines 19-22; Gangitano: col. 2, lines 45-50 and figure 5).

Regarding **claims 9, 23, 37 and 51**, the combined teaching of Anderson and Gusella as modified by Gangitano shows signal loss on-screen notification (see Gangitano: figure 5). They fail to teach a bar shape meter indicating a service level range from 0% to 100%.
It would have been obvious to one of ordinary skill in the art to modify the combined system of Anderson, Gusella and Gangitano by providing a bar shaped meter indicating the reception condition range from 0%-100" in order to visually provide the reception condition in an accurate manner.

Regarding claims **10, 24, 38 and 52**, the combined system of Anderson, Gusella and Gangitano includes that the service level is updated at predetermined intervals, e.g., per unit time when deterring the received packet stream (see Anderson: col. 5, lines 50-52).

Regarding **claims 11, 25, 39 and 53**, the combined system of Anderson, Gusella and Gangitano teaches that the display device is a television (see Anderson: figure 1; Gangitano: figures 3-5).

Regarding **claims 12, 14, 26, 28, 40, 42 and 54**, the combined system of Anderson,

Gusella and Gangitano teaches receiving the broadcast signal via a terrestrial broadcast station

network (see Anderson: col. 3, lines 50-54).

Regarding claims **13, 27, 41 and 55**, the combined system of Anderson, Gusella and

Gangitano teaches receiving the broadcast signal via a satellite network (see col. 3, lines 45-

50).

4.   Claims 2, 3, 16, 17, 30, 31, 44 and 45 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Anderson et al. (US 5,905,713 A) in view of Gusella et al. (US 5,408465 A)

and further in view of Gangitano (US 6,580,452 B1) and further in view of Mao et al. (U.S.

6,459,427 B1).

Regarding **claims 2, 3, 16, 17, 30, 31, 44 and 45,** Anderson does not explicitly disclose

the data stream includes an Internet Protocol (IP). However, Mao discloses a digital TV receiver

for receiving Internet data over digital broadcast TV network. Basically, the data and control

information can be carried over MPEG-2 transport streams. The HTML pages and their control

map information are either mapped directly onto the sections of the MPEG-2 transport stream or

mapped through an intermediate layer such as UDP/IP and then encapsulated in the sections of

the MPEG-2 transport stream. Mao further discloses that on the client side, a control block 240

allows the consumer to navigate 250 according to particular protocols 260, for example, UDP,

and/or IP 270 (see abstract; col. 6, lines 7-12; col. 7-8, lines 63-3). Therefore, it would have

been obvious to one of ordinary skill in the art at the time the invention was made to modify the

combined system of Anderson, Gusella and Gangitano by providing IP data with MPEG-2

transport streams as disclosed by Mao in order greatly desired to provide Internet service with

the television program to the consumer over digital broadcast TV network.

Further regarding **claims 3,17, 31 and 45**, the combined system of Anderson, Gusella

and Gangitano as modified by Mao further includes the MPEG-2 is segmented and carried over

MPEG-2 transport packets, which can be filtered through the PID (packetID) by the decoder

(see Mao: col. 8, lines 5-8).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Ngoc K. Vu whose telephone number is 571-272-7306. The examiner can

normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Christopher Grant can be reached on 571-272-7294. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ngoc K. Vu
Primary Examiner
Art Unit 2611

January 8, 2006